

What Is Claimed Is:

1. Product cutting device for flat material comprising:
a product guiding cylinder rotating about an axis of rotation and having a surface supporting an incoming material;
a cutting cylinder cooperating with said product guiding cylinder and having knife assemblies mounted thereon; and
at least one cyclically engageable product seizing element assigned to at least one of said product guiding cylinder and said cutting cylinder, and being moveable opposite to a sense of rotation of said product guiding cylinder for engaging a next product's front portion after a cutting operation.

2. Product cutting device according to claim 1,
wherein said product seizing element is arranged on said product guiding cylinder.

3. Product cutting device according to claim 1,
wherein said product seizing element is arranged as a hold down device on said cutting cylinder.

4. Product cutting device, according to claim 1,
wherein said product seizing element cyclically adopts an engaged position and a disengaged position.

5. Product cutting device according to claim 1,
wherein said product seizing element is actuated by a cam arrangement.

6. Product cutting device according to claim 1,
wherein said product seizing element is actuated by a spring arrangement.

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1. Product cutting device according to claim 1,
wherein said product seizing element engages said front portion of said
next product by superimposed motion of a lever system.

5 8. Product cutting device according to claim 7,
wherein a first lever of said lever system moves about a first pivot axis.

9. Product cutting device according to claim 8,
wherein a second lever of said lever system moves about a second pivot
10 axis.

10. Product cutting device according to claim 9,
wherein said product seizing element opens to an engaged position by
said second lever prior to a movement of said product seizing element opposite to said
15 sense of rotation by said first lever.

11. Product cutting device according to claim 7,
wherein a first movement about said second pivot axis is effected by a
first cam follower.

20 12. Product cutting device according to claim 7,
wherein a second movement about said second pivot axis is effected by a
second cam follower.

25 13. Product cutting device according to claim 1,
wherein an access window extends within a range of 10° to 15° over a
cylinder revolution.

14. Product cutting device according to claim 3,

wherein said hold down device is assigned to at least one of said knife assemblies on said cutting cylinder.

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15. ⁵ Product cutting device according to claim ³ 3,
wherein said hold down device is actuated by a cam.

16. ⁶ Product cutting device according to claim ³ 3,
wherein said hold down device is spring actuated.

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17. ⁷ Product cutting device according to claim ³ 3, wherein said at least one
cyclically engageable product seizing element further includes:
a hold down device on said cutting cylinder.

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Sub A2 → 18. Folder apparatus comprising at least one fold roller in operative
communication with a product cutting device having:
a product guiding cylinder for flat material, said product guiding cylinder
rotating about an axis of rotation and having a surface supporting an incoming material;
a cutting cylinder cooperating with said product guiding cylinder and
having knife assemblies mounted thereon; and
cyclically engageable product seizing elements assigned to at least one of
said product guiding cylinder and said cutting cylinder. and being moveable opposite to
a sense of rotation of said product guiding cylinder for engaging a next product's front
portion after a cutting operation.

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19. Rotary printing press comprising a product cutting device having:
a product guiding cylinder for flat material, said product guiding cylinder
rotating about an axis of rotation and having a surface supporting an incoming material;
a cutting cylinder cooperating with said product guiding cylinder and
having knife assemblies mounted thereon; and

(B)

at least one cyclically engageable product seizing elements assigned to at least one of said product guiding cylinder and said cutting cylinder. and being moveable opposite to a sense of rotation of said product guiding cylinder for engaging a next product's front portion after a cutting operation.

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20. Method for cutting flat material comprising the steps of:
rotating a product guiding cylinder about an axis of rotation, said product guiding cylinder having a surface supporting an incoming material;
cooperatively rotating a cutting cylinder with said product guiding cylinder, said cutting cylinder having knife assemblies mounted thereon; and
moving at least one cyclically engageable product seizing element, assigned to at least one of said product guiding cylinder and said cutting cylinder, opposite a sense of rotation of said product guiding cylinder for engaging a respective next product's front portion after a cutting operation.

21. Method for cutting flat material according to claim 19, further comprising the step of:

20 clamping said next product's front portion by an actuated hold down element arranged on a surface of said cutting cylinder.